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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,012	03/05/2002	Dale U. Chang	68017 CIP	7703

7590 09/26/2003
DALE U. CHANG
LASERTECH USA, LLC
7517 CURRENCY DRIVE
ORLANDO, FL 32809

EXAMINER

EDMONDSON, LYNNE RENEE

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 09/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/091,012	Applicant(s) CHANG, DALE U.	
	Examiner Lynne Edmondson	Art Unit 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40, 42, 43, 46, 48-56 is/are rejected.
- 7) ☒ Claim(s) 41, 44, 45, 47 and 57-59 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>040902</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-9, 12, 14, 16-20, 22, 24-29, 32-40, 42, 43, 46 and 48-56 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6, 17, 19-22, 24, 34, 42-45, 50, 51, 56, 57, 59 and 60 of U.S. Patent No. 6040550. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach an apparatus and method for laser welding bellows. The apparatus comprises a fixture for supporting bellows (instant claim 1) described as an arbor in '550 claim 1, a reference point determining device for determining locations (instant claim 1) described as an optical tracking means in '550 claim 1, a laser for generating a laser beam (both claims), a positioner for relatively positioning the laser beam and fixture (instant claim 1) described as a beam steering means in '550 claim 1 and a controller for controlling the laser and positioner (instant claim 1) described as a processor in '550 claims 2 and 5. An input means is also

present (instant claims 12 and 20, '550 claim 19 means for storing and recalling information). Regarding instant claims 2-8 and 24-30, the apparatus of '550 is capable of measuring multiple reference points in a variety of locations using the sensors and processors of '550 claims 3-5. The processor and beam steering means would be capable of causing the beam to follow successive points along a predetermined function. The controller controls the laser and positioner (instant claim 9, '550 claims 5 and 19). The reference point determining system is optical (instant claim 12, '550 claims 2 and 20-22) comprising a camera and display (instant claims 14 and 22, '550 claims 4, 6 and 24) or sensors (instant claim 16, '550 claim 21). It is noted that the presence of an end plate or multiple bellows will not further limit the apparatus. See instant claims 17, 18, 32 and 33 and '550 claims 17 and 42-45. Instant claims 19 and 34 teach an arbor and motor which is needed to drive the arbor. Arbors are taught in '550 claims 1, 20, 34 and 42, which require a motor. Both teach methods of laser welding with the steps of supporting a plurality of bellows, determining at least one reference point and directing the laser to weld the edges (outer joint) based on the reference point (instant claims 35 and 43, '550 claim 50) where the operator inputs from a program (instant claims 46 and 48, '550 claim 60), accepting respective reference points on the outer edges (outer joints) (instant claims 36 and 37, '550 claim 51), on a plurality of points (instant claims 38, 42, 49-51 and 54-56, '550 claim 50 plurality of bellows to be welded), directing the laser beam to follow a predetermined function (instant claims 39, 42, 52 and 53, '550 claims 56 and 57) such as linear (instant claim

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40, '550 claims 57 and 59). However, the instant claims are slightly broader than the '550 claims.

It would have been obvious to one of ordinary skill in the art at the time of the invention that although the terminology used is slightly different, the apparatus and methods are the same yielding the same end product.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-9, 12-29 and 32-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Pryor (USPN 6415191 B1).

Pryor teaches an apparatus for laser welding comprising an a fixture (chuck 12) for supporting workpieces in side by side relation (figure 1 and col 6 lines 45-65), a reference point determining device (col 7 lines 1-18), a laser, a positioner (col 13 lines 59-63) and a controller with input means (program, col 6 lines 45-52 and col 7 line 62 – col 8 line 17), wherein the apparatus is capable of determining multiple spaced apart reference points on at least one pair of adjacent edges via sensors (col 27 lines 23-33)

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The controller can determine an average (col 7 lines 1-6, col 9 line 37 – col 10 line 16 and col 28 lines 6-17). The controller causes the laser beam to follow a predetermined function such as linear (figure 1, col 13 lines 5-28 and col 8 lines 45-60). The sensors are optical and include a camera and display (col 7 line 1 and col 8 lines 45-60), which may be infrared (col 9 lines 25-32). The presence of an end plate does not further limit the apparatus. The apparatus can hold plural members. The fixture comprises a rotatable arbor and motor (col 26 lines 1-41). The optical system presents a magnified image (col 7 lines 7-18). See also Pryor claims 1-20.

5. Claims 1-12, 14, 16-18, 20, 22 and 24-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Britnell (USPN 6452131 B2).

Britnell teaches an apparatus for laser welding comprising an a fixture (work table) for supporting workpieces in side by side relation (col 4 lines 58-67), a reference point determining device, a laser, a positioner (35,39) and a controller with input means (col 5 lines 1-39 and col 7 line 55 – col 8 line 18), wherein the apparatus is capable of determining multiple spaced apart reference points on at least one pair of adjacent edges via cameras (col 9 lines 17-57). The controller can determine an average as it is a programmed microprocessor (col 7 lines 29-40). The controller causes the laser beam to follow a predetermined function such as linear (col 7 lines 7-23 and col 9 lines 39-57). The controller controls the laser and positioner (col 12 lines 10-44). The laser provides enlarged beam coverage (col 3 lines 1-12 and col 11 lines 59-67). The laser provides a plurality of beams (by splitting, col 10 lines 34-55 and col 11 lines 43-56).

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The sensors are optical and include a camera and display (col 5 lines 22-39 and col 7 lines 1-23). The presence of an end plate does not further limit the apparatus. The apparatus can hold plural members. See also Britnell claims 1-47.

Allowable Subject Matter

6. Claims 41, 44, 45, 47 and 57-59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art teaches the invention essentially as claimed but does not teach making bellows from bellows components. See Britnell (USPN 6452131 B2). The reference teaches a more general laser welding method for joining any type of workpiece.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (703) 306-5699. The examiner can normally be reached on Monday through Thursday from 6:30 a.m. to 5 p.m.

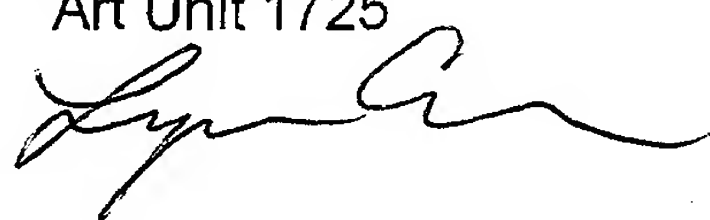
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703) 308-3318. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

LRE

Lynne Edmondson
Examiner
Art Unit 1725



9/16/03